

Abstract

micro

The invention allows to create a transistor which can operate on supply pressure 120 volt and over (to some kilovolts), that is the transistor can be both close and open with any polarity of a voltage on drain-source. It simplifies designing of many circuits and makes it possible to create circuits which cannot be produced with any other types of transistors. Besides, the transistor has high technical characteristics: a high current density (10^3 a cm^{-2} ; in pulse 10^4 a cm^{-2}) and a high switching power. It makes it possible to apply the transistor for production, transfer and use of an electric energy. This is achieved by disposing elements of a bipolar static induction transistor: a gate, a source and a channel -- on each of sides of a lightly doped substrate.